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EXAMINER

MYERS, PAUL R

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 9

Application Number: 09/315,806  
Filing Date: May 21, 1999  
Appellant(s): DENEROFF ET AL.

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Charles S. Fish  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 10-7-02.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The appellant give a statement that the claims 1-20 should be grouped to stand or fall together.

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

|           |             |        |
|-----------|-------------|--------|
| 5,396,606 | Amini et al | 3-1995 |
| 3,470,542 | Trantanella | 3-1967 |

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**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Amini et al PN 5,396,602 in view of Trantanella PN 3,470,542.

In regards to claims 1 and 11: Amini et al teaches receiving a bus request (REQ); selecting the request according to a priority associated with the request (Abstract); generating a control signal in response to selection of the request (GNT); and enabling access to the bus in response to the control signal (Abstract). Amini et al does not expressly teach this enabling including switching the requesting devices into electrical connection with the bus. Although the examiner does not know of any interface that doesn't use switches (generally tri-state) connect to the bus. Trantanella expressly teaches an interface unit including switches that are enabled to provide access to a bus in response to a control signal (Figure 3). It would have been obvious to use switches to connect the requesting device to the bus because this would have prevented signal contention that would be caused by having all devices directly connected to the bus without any I/O buffers.

In regards to claims 2 and 15: Amini et al teaches the bus being PCI.

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In regards to claims 3,16 and 20: Amini et al teaches the well known standard centralized PCI bus arbitration claimed above. Amini et al however teaches the older PCI standard of 33 Mhz and not the newer 66 or 100 Mhz PCI bus standards. Official notice is taken that the 66 Mhz PCI and 100 Mhz PCI bus standards are very common in the art. It would have been obvious to a person of ordinary skill in the art at the time of the invention to have the well known standard arbitration method described by Amini et al comply with 66 Mhz and 100 Mhz PCI buses because this would have prevented the arbitration method of Amini et al from becoming out of date.

In regards to claims 4, 13 and 18: Amini et al teaches the requests coming from devices requiring use of the bus.

In regards to claims 5-7 and 14: Amini et al teaches arbitrating between a plurality of requests and granting in order.

In regards to claims 8, 10, 17 and 19: Both Amini et al and Trantanella teach disabling output of one device so another can access the bus.

In regards to claims 9 and 12: Amini et al teaches a limited number of requesters.

**(11) *Response to Argument***

In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest

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to one of ordinary skill in the art. In *re* McLaughlin, 170 USPQ 209 (CCPA 1971). references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In *re* Bozek, 163 USPQ 545 (CCPA) 1969. The test of obviousness is:

"whether the teachings of the prior art, taken as a whole, would have made obvious the claimed invention," *In re Gorman*, 933 F.2d at 986, 18 USPQ 2d at 1888.

Subject matter is unpatentable under section 103 if it "'would have been obvious . . . to a person having ordinary skill in the art.' While there must be some teaching, reason, suggestion, or motivation to combine existing elements to produce the claimed device, it is not necessary that the cited references or prior art specifically suggest making the combination." *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ 2d 1500, 1502 (Fed. Cir. 1988).

"Such suggestion or motivation to combine prior art teachings can derive solely from the existence of a teaching, which one of ordinary skill in the art would be presumed to know, and the use of that teaching to solve the same [or] similar problem which it addresses." *In re Wood*, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979).

"In sum, it is off the mark for litigants to argue, as many do, that an invention cannot be held to have been obvious unless a suggestion to combine prior art teachings is found *in* a specific reference."

Entire quote from *In re Oetiker*, 24 USPQ 2d 1443 (CAFC 1992).

Accordingly, it is not required to disclose or specifically suggest particular elements. Instead the measure is what the teachings would suggest to one of ordinary skill in the art, not what the art specifically suggests.

In response to applicant's argument that Amini et al is directed to arbitration and Trantanella is directed to a modular system design thus have non common subject matter, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Both Amini et al and Trantanella are

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directed to connecting devices to a bus. Amini et al just lacks the details as to how the electrical connection is made focusing on the arbitration. Trantanella teaches how the electrical connection is made.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The examiner notes the feature for which Trantanella was cited is in all likelihood inherent in Amini et al. However to avoid argument with respect to this inherent feature in Amini et al the examiner grabbed the Trantanella reference which expressly teaches this standard feature.

In regards to applicants argument that the proposed modification changes the principle operation of the prior art: This is clearly incorrect Amini et al still uses the standard request grant and maintains the standard electrical isolation which, since the examiner does not know of any system that does not have electrical isolation, in all likelihood used the claimed switches without even requiring Trantanella which expressly points out how these switches are standardly used. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what

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the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In regards to the applicants argument that a reasonable expectation of success has not been shown: This is incorrect. The examiner would expect one to use the switches of Trantanella in the standard way for the standard isolation that is inherent in Amini et al. The examiner could not conceive how one of ordinary skill in the art would not understand how to use the standard switches of Trantanella to connect the devices in Amini et al in the standard way. Note Trantanella expressly shows how those switches should be connected. See figure 3. The Grant would enable the output as is standard.

In regards to applicants argument that the combination does not teach enabling a switch of pass transistor to control access of a device to a bus: This is clearly incorrect. See figure 3 of Trantanella which shows gates GA that are enabled to control access of a device to a bus.

In regards to applicants argument that both Amini et al and Trantanella both provide continuous access to a bus: This is clearly incorrect. Both Amini et al and Trantanella enable and disable access to a bus. Amini et al sends a grant to enable access to the bus and if the device does not receive the grant access to the bus is prevented. Amini et al but does not provide the details how the interface of the device accesses the bus. Trantanella uses an output enable signal to allow access to the bus if the output enable signal is not provided the access to the bus is not enabled.

In regards to applicants argument that the examiner readily admits that the Amini et al patent has no element to control access to the bus: This is clearly false. The examiner clearly points out that Amini et al teaches enabling access to the bus. The reason for the use of



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Trantanella is that Amini et al does not show the structure of the device interface that enables access to the bus thus does not expressly teach the claimed switch. Trantanella expressly shows the claimed switch in a device interface.

In regards to applicants argument that the in-out buffers of Trantanella are always connected to the bus: They are connected through a switch. When the switch is not enabled they are not connected to the bus. See Figure 3 switches GA.


In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the loading problems of higher frequency buses) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In regards to applicants request the examiner provide one or more combinable references that support the rejection of the claims: See Amini et al and Trantanella.

In regards to applicants request the examiner show where each and every claim limitation is taught by the prior art: See prior rejection.

For the above reasons, it is believed that the rejections should be sustained.

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PRIMARY EXAMINER

Respectfully submitted,

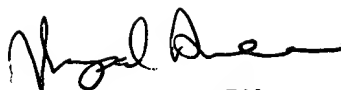
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October 31, 2002

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